

# Tuberculosis (TB)

*Disease Fact Sheet Series*

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## What is tuberculosis?

Tuberculosis, or TB, is a disease caused by bacteria called *Mycobacterium tuberculosis*. The bacteria can attack any part of the body, but they usually attack the lungs. People who are infected with TB do not feel sick, do not have any symptoms, and cannot spread TB. But they may develop TB disease and be able to spread it some time in the future. People with TB disease can be treated and cured if they seek medical help. Even better, people who have TB infection but are not yet sick can take medicine so that they will never develop TB disease.

## How Is TB Spread?

TB disease in the lungs or throat is infectious and can be spread from one person to another through the air. The bacteria are put into the air when a person with TB disease of the lungs or throat coughs or sneezes. People nearby may breathe in these bacteria and become infected. People with TB disease are most likely to spread it to people they spend time with every day. This includes family members, friends, and coworkers. Because TB is spread through the air, people cannot get infected with TB bacteria through handshakes, sitting on toilet seats, or sharing dishes and utensils with someone who has TB.

People with TB disease in the lungs or throat need to stay home from work or school so they don't spread TB bacteria to other people. After taking medicine for a few weeks, people with TB disease will feel better and no longer be infectious to others. A doctor or nurse will decide when it is safe to return to work or school. TB disease in other parts of the body, such as the kidney or spine, is usually not spread to others.

## What Is TB Infection?

In most people who breathe in TB bacteria and become infected, the body is able to fight the bacteria to stop them from growing. The bacteria become inactive, but they remain alive in the body and can become active later. This is called TB infection. People with TB infection have no symptoms, don't feel sick, can't spread TB to others, usually have a positive skin test reaction, and can develop TB disease later in life if they do not receive medication. Many people who have TB infection never develop TB disease. In these people, the TB bacteria remain inactive for a lifetime without causing disease. But in other people, especially people who have weak immune systems, the bacteria become active and cause TB disease.

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## **What Is TB Disease?**

TB bacteria become active if the immune system can't stop them from growing. Some people develop TB disease soon after becoming infected, other people may get sick later. Symptoms of TB depend on where in the body the TB bacteria are growing. TB in the lungs may cause a bad cough that lasts longer than 2 weeks, pain in the chest, or coughing up blood or sputum (phlegm from deep inside the lungs). Other symptoms of TB disease are weakness or fatigue, weight loss, no appetite, chills, fever, or sweating at night.

## **How Can I Get Tested for TB?**

A TB skin test is the only way to find out if you have TB infection. You can get a skin test at the health department or at your doctor's office. A health care worker will inject a small amount of testing fluid (called tuberculin) just under the skin on the lower part of your arm. After 2 or 3 days, the health care worker will measure the reaction to the test. The health care worker will tell you if your reaction to the test is positive or negative. A positive reaction usually means that you have TB infection.

If you have a positive reaction to the skin test, your doctor or nurse may do other tests to see if you have TB disease. These tests usually include a chest x-ray and a test of the phlegm you cough up. Because the TB bacteria may be found somewhere besides your lungs, your doctor or nurse may do other tests.

## **If I Have TB Infection, How Can I Keep from Developing TB Disease?**

If you have TB infection (a positive skin test reaction) you can take medicine to keep from developing TB disease. The medicine kills the TB bacteria that are inactive in the body. It is important that you take all the pills prescribed for you so that your treatment is effective. People who have TB infection but do not take medicine need to know the symptoms of TB. If they develop symptoms of TB disease later on, they should see a doctor right away.

## **How Is TB Disease Treated?**

TB disease can almost always be cured with medicine if it is taken as the doctor or nurse tells you. If you have TB disease, you will need to take several different drugs (usually isoniazid, rifampin, pyrazinamide, and ethambutol). This is because there are many bacteria to be killed. Taking several drugs will do a better job of killing all of the bacteria and preventing them from becoming resistant to the drugs. TB bacteria die very slowly. It takes 6 months (sometimes longer) for the medicine to kill all the TB bacteria. You will probably start feeling well after only a few weeks of treatment, but the TB bacteria are still alive in your body. You must continue to take your medicine until all the TB bacteria are dead, even though you may feel better and have no more symptoms of TB disease.